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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,705

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Anthony Gerkis

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EXAMINER

ZEWARI, SAYED T

ART UNIT

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2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,705	Applicant(s) GERKIS ET AL.	
	Examiner SAYED T. ZEWARI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 14-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 15-18 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zellner et al. (US 6069882) in view of Cudak et al. (US 6091757).

With respect to claim 1, Zellner discloses a method for managing a request for an assignment of at least one uplink dedicated data channel in a network (**See Zellner's figure 2(200), col.5 lines 24-30**) comprising a base station including a radio resource and access manager and a plurality of subscriber stations (**See Zellner's figure 1(24, 26, 28, and 30), col.4 lines 19-28**), where said base station can assign a dedicated data channel from a pool of unassigned dedicated data channels and can allocate a portion of radio resources to assign data rate capacity to an assigned channel (**See Zellner's figure 2(216), col.5 lines 43-45**), comprising:

- a) receiving at said base station a request for a dedicated data channel from one subscriber station of said plurality of subscriber stations (**See Zellner's figure 2(200), col.5 lines 24-30, col.1 lines 61-63**);
- b) said radio resource and access manager determining if sufficient radio resources are available for providing said requested data channel and if a dedicated data channel is

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available for assignment from said pool of unassigned dedicated data channels (**See Zellner's figure 2, col.5 lines 24-67**), then

i) if said resources and said dedicated data channel are available, advancing to step (e) (**See Zellner's figure 2(202, 216), col.5 lines 24-67, col.5 lines 43-45**);

iii) if said resources are available but said dedicated data channel is not available advancing to step (c);

c) determining whether at least one other subscriber station from said plurality of subscriber stations with an assigned dedicated data channel is eligible to have its said assigned dedicated data channel returned to said pool of unassigned dedicated data channels (**See Zellner's figure 2, col.5 lines 24-67**), then

iv) if at least one other subscriber station is eligible to have its said assigned dedicated data channel returned, returning said assigned dedicated data channel to said pool of unassigned dedicated data channels (**See Zellner's figure 2, col.5 lines 24-67**); then advancing to step (e); or

v) otherwise terminating the method (**See Zellner's figure 2(212, 224), col.5 lines 24-67**);

vi) returning to step (b) if such a at least said at least one subscriber station exists (**See Zellner's figure 2(206, 212, 216), col.5 lines 24-67**);

vii) terminating the method if such said at least one subscriber station does not exist (**See Zellner's figure 2(206, 224), col.5 lines 24-67**); and

e) assigning said dedicated data channel from said pool of unassigned dedicated data channels to said one subscriber station (**See Zellner's figure 2(216), col.5 lines 24-**

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67). Zellner discloses everything claimed as applied above to claim 1, except for explicitly reciting determining whether at least one other subscriber station with an assigned dedicated channel with a first data rate capacity can be reduced to a lower data rate capacity to make radio resources available and reducing said first data rate capacity to free said associated radio resources available. In analogous art of communication system, Cudak discloses a communication system for data communication wherein the data rate of data communication channel from base station to a mobile station can be decreased or increased in order to avoid occupation of dedicated data channel for lengthy periods of time (**See Cudak's figure 1(105), col.2 lines 64-65, figure 6(605, 609) col.7 line 67, col.8 line 1, lines 17-18**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Zellner by specifically incorporating hardware and software components, as taught by Cudak, for the purpose of enabling the system to increase or decrease the data rate of data communication in order to provide more data rate where it is needed.

With respect to claim 6, Zellner discloses a method for managing the allocation of uplink resources in a network (**See Zellner's figure 2(200), col.5 lines 24-30**) comprising a base station and a plurality of subscriber stations (**See Zellner's figure 1(24, 26, 28, and 30), col.4 lines 19-28**), each of said plurality of subscriber stations being independently allocated uplink resources to provide current data rate from a set of possible data rates (**See Zellner's figure 2(216), col.5 lines 43-45**), said method comprising:

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a) receiving a message at said base station from one subscriber station of said plurality of subscriber stations (**See Zellner's figure 2(200), col.5 lines 24-30, col.1 lines 61-63**), and

Zellner discloses everything claimed as applied above to claim 6, except for explicitly reciting the following limitations related to data rate as outlined below:

In analogous art of communication system, Cudak discloses a communication system for data communication wherein

i) if said message indicates one of high amount of traffic waiting to be sent and low amount of traffic waiting to be sent, determining a desired data rate from said set of possible data rates for said one subscriber station, where said desired data rate is a different data rate than said current data rate (**See Cudak's figure 5, col.6, lines 55-67, col.6 lines 1-51**);

ii) otherwise ignoring said message and terminating the method;

b) determining whether sufficient uplink resources are available to grant said desired data rate to said one subscriber station (**See Cudak's figure 6(605, 609) col.7 line 67, col.8 line 1, lines 17-18**), then

iii) if sufficient uplink resources are available, advancing to step (e)

iv) if sufficient network are not available, advancing to step (c);

c) determining whether at least one other subscriber station from said plurality of subscriber stations is eligible for a lower data rate, said at least one other subscriber station being eligible for a lower data rate if said current data rate for said at least one

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other subscriber station is greater than a minimum data rate allocated to said at least one subscriber station **(See Cudak's figure 6(605, 609) col.7 line 67, col.8 line 1, lines 17-18)**, then

v) if at least one other subscriber station is eligible for said lower data rate **(See Cudak's figure 6(605) col.7 line 67, col.8 line 1)**, advancing to step (d);

vi) otherwise, ignoring said message and terminating the method;

d) determining which particular subscriber station from said at least one other subscriber stations eligible for said lower data rate will be subjected to said rate reduction and moving said particular subscriber station to said lower data rate **(See Cudak's figure 6(605) col.7 line 67, col.8 line 1)**, and then returning to step (b); and

e) moving said one subscriber station to said desired data rate from said current data rate for said one subscriber station **(See Cudak's figure 5, col.6, lines 55-67, col.6 lines 1-51)** It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Zellner by specifically incorporating hardware and software components, as taught by Cudak, for the purpose of enabling the system to increase or decrease the data rate of data communication in order to provide more data rate where it is needed.

With respect to claim 14, Zellner discloses a method for managing uplink load in a network having a predetermined maximum uplink load level **(See Zellner's figure 2(200), col.5 lines 24-30)**, said network comprising a base station and a plurality of

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subscriber stations (**See Zellner's figure 1(24, 26, 28, and 30), col.4 lines 19-28**), the method comprising:

a) determining said total uplink load in said network (**See Zellner's figure 2(200), col.5 lines 24-30, col.1 lines 61-63**);

Zellner discloses everything claimed as applied above to claim 14, except for explicitly reciting the following limitations related to data rate as outlined below:

In analogous art of communication system, Cudak discloses a communication system for data communication wherein

b) if said load is within a pre-selected range of said maximum uplink load, determining if an eligible subscriber station exists within said plurality of subscriber stations, said eligible subscriber station being capable of having its data rate reduced from its present data rate to a lower data rate in said set of possible data rates, and reducing said present data rate to said lower data rate and returning to step a) (**See Cudak's figure 5, col.6, lines 55-67, col.6 lines 1-51**);

c) otherwise, if said load is within a pre-selected range of said maximum uplink load and no eligible subscriber station exists, determining at least one subscriber station whose present data rate will be reduced to zero and reducing said present rate to zero and returning to step (a) (**See Cudak's figure 6(605, 609) col.7 line 67, col.8 line 1, lines 17-18**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Zellner by specifically incorporating hardware and software components, as taught by Cudak, for the purpose of enabling

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the system to increase or decrease the data rate of data communication in order to provide more data rate where it is needed.

With respect to claim 2, Zellner discloses a method where said at least one other subscriber station in step (c) is eligible only if it has no reserved uplink resources **(See Zellner's figure 2, col.5 lines 24-67).**

With respect to claim 3, Zellner discloses a method where said at least one other subscriber station in step (c) is eligible only if it has a data rate as least as low as any other subscriber station with no reserved uplink resources **(See Zellner's figure 2(212), col.5 lines 24-67).**

With respect to claim 4, Zellner discloses a method where said at least one other subscriber station in step (c) is eligible only if it has been at said data rate for at least as long any other subscriber station with no reserved uplink resources **(See Zellner's figure 2(212), col.5 lines 24-67).**

With respect to claim 5, Zellner discloses a method where said at least one other subscriber station in step (c) is eligible only if it has been at said data rate for at least a pre-selected minimum holding time **(See Zellner's figure 2(212), col.5 lines 24-67).**

With respect to claim 7, Zellner discloses a method where said at least one other subscriber station in step (c) is eligible only if it has been at said data rate for at least as pre-selected minimum holding time **(See Zellner's figure 2(212), col.5 lines 24-67).**

With respect to claim 8, Cudak discloses a method where said desired data rate is a data rate from said set of data rates and is one of one step higher and one step lower than said current data rate in said set of data rates **(See Cudak's figure 1(105), col.2 lines 64-65, figure 6(605, 609) col.7 line 67, col.8 line 1, lines 17-18).**

Allowable Subject Matter

3. Claims 9 and 15-18 are allowed.

Conclusion

4. The following prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Zellner et al. U. S. Patent No. (7046643) discloses a method for dynamic multi-level pricing for wireless communications according to quality of service.

Zellner et al. U. S. Patent No. (7050455) discloses a system and method for dynamic allocation of capacity on wireless networks.

Grube et al. U. S. Patent No. (5583869) discloses a method for dynamically allocating wireless communication resources.

Holma U. S. Patent No. (6868257) discloses a method for selection of coding method .

Goss et al. U. S. Patent No. (6658255) discloses an enhanced wireless radio channel utilization.

Norstedth et al. U. S. Patent No. (5926469) discloses a channel resource management within a digital mobile communications network.

Baiyor et al. U. S. Patent No. (6282429) discloses a system for providing prioritized wireless communication service to wireless communication subscriber.

Dupont et al. U. S. Patent No. (5974106) discloses a method and apparatus for multirate data communications.

Alperovich et al. U. S. Patent No. (5940763) discloses a method for enhanced preemption within a mobile telecommunications network.

Pankaj et al. U. S. Patent No. (6229795) discloses a system for allocating resources in a communication system.

Purnadi et al. U. S. Patent No. (6201971) discloses an apparatus and method for controlling service degradation performance of communications in a radio communication system.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAYED T. ZEWARDI whose telephone number is (571)272-6851. The examiner can normally be reached on 8:30-4:30.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sayed T Zewari/
Examiner, Art Unit 2617

February 13, 2009

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617